

Remarks

The Advisory Action mailed August 2, 2006 indicates that the amendments filed July 13, 2006 will not be entered because they do not place the application in better form for appeal by materially reducing or simplifying the issues for appeal. The Request for Continued Examination (RCE) filed concurrently herewith will be effective to obtain entry of the recent amendments.

Furthermore, claim 1 has been amended to recite a process for producing processed dry β -conglycinin protein, including drying the solution or paste after heat treatment under acidic conditions. These changes are supported by the disclosure at page 10, lines 8 and 9 of specification.

Claim 10 has also been added to the application, and recites that drying is carried out after neutralization and sterilization, which is supported by page 10, line 10.

On the Continuation sheet of the Advisory Action, the Examiner takes the position that columns 21-22 of the Bringe reference teach the heat treatment of β -conglycinin at 90 degrees C under acidic conditions. However, Applicants respectfully submit that this is not what columns 21 and 22 teach. Column 21, lines 39-42 does refer to heat treatment at 90 degrees C, and Tables 1-3 do disclose acidic pH values. But there is no indication that these acidic pH values existed **at the time of heat treatment at 90 degrees C**. Tables 1-3 in Bringe merely disclose median particle diameters of emulsions and viscosity of the heat-treated emulsions. This does not mean that the acidic pH values in Tables 1-3 were present during heat treatment at 90 degrees C. As noted at column 21, lines 43-48, the purpose of measuring the particle diameters of the heat-treated emulsions is to demonstrate the potential of β -conglycinin for replacing sodium caseinate “in emulsion applications near pH 6.7, such as nutritional beverages and coffee creamers as shown in Table 1.” Accordingly, although **measurement of the particle diameters** was carried out at pH values near 6.7 to determine the potential of β -conglycinin for this purpose, **Bringe does not suggest that heat treatment at 90 degrees C occurred under acidic conditions**, as required by the presently claimed invention.

Furthermore, as Applicants have previously mentioned, in view of the remarkably high viscosity of protein rich in β -conglycinin, the present invention is directed to

lowering such high viscosity by lowering the solubility of the protein. As a result of the amendment set forth to claim 1 above, the process is now directed to production of dry β -conglycinin protein.

Applicants note that the "viscosity" and "solubility" referred to in the present application are those in a neutral range (see, for example, page 4, lines 14-16 and page 9, line 20 to page 10, line 2 of the specification). On the other hand, the disclosure of the Bringe reference at columns 21-22 pointed out by the Examiner is directed to measurement of emulsion particle size and viscosity in an acidic range. That is, Example 2 of the reference discloses the measurement of particle size and viscosity of emulsions having a high β -conglycinin content at various pH values after heating at 90°C. And column 8, lines 42-46 of the reference mentions that viscosity becomes maximum at near pH 5.6. That is, the viscosity referred to in the reference is that in an acidic range, and there is no relevant teaching of lowering viscosity in a neutral range of β -conglycinin protein in the reference. Further, the reference is silent on dried β -conglycinin protein.

For these reasons, as well as those set forth in the Response filed July 13, 2006, and further in view of the amendments to claim 1 as set forth above, it is Applicants' position that the presently claimed invention is clearly patentable over the Bringe reference.

Accordingly, the application is now considered to be in condition for allowance, and such allowance is solicited.

Respectfully submitted,

Masahiro ISHIKAWA et al.

By:


Michael R. Davis
Registration No. 25,134
Attorney for Applicants

MRD/pth
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
August 18, 2006